

6061 0.625"

Work Order ID 122712

Tuesday, July 22, 2014 8:44:23 AM

122712

Page 1

Item ID: D3492-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Plug

Start Date: 7/21/14 Start Qty: 80.00

80

Cust Item ID:

Required Date: 7/21/14 Req'd Qty: 80.00

80

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 14-07-23

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3492	E

100 Hardinge CNC LATHE SMALL 0.00

100 Hardinge

DAS
02
9-89 BT 14-07-29Hardinge CNC Lathe Small 1-Turn as per Folio FA633 & Dwg D3492
Dwg Rev: E
Folio Rev: N/A

110 QC2- Inspect parts off machine FAI/FAIB 0.00

110 QC

Quality Control

DAS
02
9-89 BT 14-07-29

120 QC8- Inspect parts - second check 0.00

120 QC

Quality Control

DAS
25
9-89 14-07-29

DOA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

Work Order: _____
 Part No. _____
 NCR No. _____

DISPOSITION

Rework
 Scrap
 Use-as-is
 Suspected Unapproved

AGAINST DEPARTMENT/PROCESS

Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	Bending <input type="checkbox"/>	General	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>
	Centre Not Concentric <input type="checkbox"/>		Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>
	Cracks <input type="checkbox"/>		Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
	Crimp/Kink/Ripple/Wave <input type="checkbox"/>		Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>
	Cuffs <input type="checkbox"/>		Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
	Crushing <input type="checkbox"/>		Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>	
	Heat Treat <input type="checkbox"/>		Misaligned/off center <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	
	Inspection Strip in Tube <input type="checkbox"/>		Misaligned/off center <input type="checkbox"/>		
	Marks/Chatter <input type="checkbox"/>		Misaligned/off center <input type="checkbox"/>		
	Turning Sequence <input type="checkbox"/>		Misaligned/off center <input type="checkbox"/>		
	Wave/Twist in Tube <input type="checkbox"/>		Misaligned/off center <input type="checkbox"/>		

Work Order ID 122712

Tuesday, July 22, 2014 8:44:23 AM

122712

Page 2

Item ID: D3492-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Plug

Stop

NS2

Start Date: 7/21/14

Start Qty: 80.00

80

Cust Item ID:

Required Date: 7/21/14

Req'd Qty: 80.00

80

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

Chemical Conversion Coat per QSI005 4.1

0.00

150

HandFinish

Hand Finishing

80 7647-3j

160

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

160

Powdercoat

Powder Coating

Memo

0.00

(Flat End Only)

START TIME: 4:30OVEN TEMPERATURE: 320FINISH TIME: 5:00

m128959

60 CR/14-07-3

170

OC3- Inspect Part Finish

0.00

170

QC

Quality Control

Memo

0.00

80 8 80 14/08/14

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS						
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>					
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>					
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>					
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design										
Doc/Data										
Equip/Tooling										
Handling/Pre										
Material										
Operator										
Offset/Setup										
Process										
Supplier										
Training										
Transport										
Unapproved										
FAULT CATEGORY										
Landing Gear				General						
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function						
				<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence						
				<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge						
				<input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled						
				<input type="checkbox"/> Other						

Work Order ID 122712

122712

Page 3

Tuesday, July 22, 2014 8:44:23 AM

Item ID:	D3492-1	Accept	*N900040100*	Setup	Start	*NS1*	
Revision ID:				Stop		*NS2*	
Item Name:	Plug						
Start Date:	7/21/14	Start Qty:	80.00	*80*	Cust Item ID:		
Required Date:	7/21/14	Req'd Qty:	80.00	*80*	Customer:		
Reference:							
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	Identify as per dwg & Stock Location: <u>FPOO</u>	0.00							AUG 01 2014
180 Packaging	Memo	0.00				<u>80X</u>	<u>DAS</u>		
						<u>28</u>	<u>9-89</u>		
190	QC21- Final Inspection - Work Order Release	0.00							
190 QC	Memo	0.00							
Quality Control									

7/21/14

14/8/14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS						
Part No. _____	Rework	<input type="checkbox"/>	Skid-tube	<input type="checkbox"/>	Crosstube	<input type="checkbox"/>	Water Jet	<input type="checkbox"/>	Engineering	<input type="checkbox"/>
NCR No. _____	Scrap	<input type="checkbox"/>	Machining	<input type="checkbox"/>	Small Fab	<input type="checkbox"/>	Prod. Eng. Coor.	<input type="checkbox"/>	Quality	<input type="checkbox"/>
	Use-as-is	<input type="checkbox"/>	Thermoforming	<input type="checkbox"/>	Finishing	<input type="checkbox"/>	Rec/Store/Packaging	<input type="checkbox"/>	Other	<input type="checkbox"/>
	Suspected Unapproved	<input type="checkbox"/>	Large Fab	<input type="checkbox"/>	Composite	<input type="checkbox"/>	Supplier	<input type="checkbox"/>		

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre	11/1								
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear		General									
<input type="checkbox"/>	Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Folio/Program	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>	Pressure/Forced		
<input type="checkbox"/>	Centre Not Concentric	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Set-up		
<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Broken/Damage/Defect	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Temperature/Cure		
<input type="checkbox"/>	Crimp/Kink/Ripple/Wave	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Inspection Incomplete/Unqualified	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Weld		
<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>	Wrong Stock Pulled		
<input type="checkbox"/>	Crushing	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Misaligned/off center	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>			
<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other		
<input type="checkbox"/>	Inspection Strip in Tube	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Misread	<input type="checkbox"/>		<input type="checkbox"/>			
<input type="checkbox"/>	Marks/Chatter	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Off-set	<input type="checkbox"/>		<input type="checkbox"/>			
<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>			
<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Fit/Function	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>			

Picklist Print

Page 1

Tuesday, July 22, 2014 8:44:23 AM

Work Order ID: 122712

122712
D3492-1

Parent Item: D3492-1

Parent Item Name: Plug

Start Date: 7/21/14

Required Date: 7/21/14

Start Qty: 80.00

Required Qty: 80.00

Comments: IPP Rev:A 11.04.19 per dwg revC DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6R0.625		Purchased	No			100	f	44.8075	0.0625	DAS 02 9-89	**		

M6061T6R0 625

6061-T6 Round Bar .625"

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT012	44.807474	
m126726	1.854474	
m128265	18.953	
m129530	24	

14-07-29

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear		General									
Bending		Bend		Folio/Program		Outside Dimensions		Pressure/Forced			
Centre Not Concentric		BOM/Route		Grain		Over/Under tolerance		Set-up			
Cracks		Broken/Damage/Defect		Hardware		Part Incorrect		Temperature/Cure			
Crimp/Kink/Ripple/Wave		Burrs		Inspection Incomplete/Unqualified		Part Lost/Missing		Weld			
Cuffs		Contamination		Instructions Incomplete/Unclear		Part Moved		Wrong Stock Pulled			
Crushing		Countersink		Misaligned/off center		Positioned Wrong					
Heat Treat		Cut Too Short		Mislabeled		Power Loss/Surge					
Inspection Strip in Tube		Drawing		Misread							
Marks/Chatter		Drill Holes		Off-set							
Turning Sequence		Finish		Out of Calibration							
Wave/Twist in Tube		Fit/Function		Out of Sequence							

DART AEROSPACE LTD	Work Order:	127712
Description: Plug	Part Number:	D3492-1
Inspection Dwg: D3492 Rev: E		Page 1 of 1

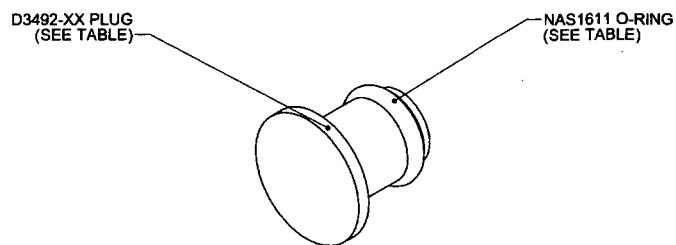
FIRST ARTICLE INSPECTION CHECKLIST

DAS

Measured by:	BT 02 9-89	Audited by:	DAS 25 9-89	Preliminary Approval:	
Date:	14-07-29	Date:	14-7-29	Date:	

Rev	Date	Change	Revised by	Approved
A	06.06.02	New Issue P/O D3492-041	KJ/JLM	
B	06.10.16	Ø0.625 was Ø0.500	KJ/JLM	
C	07.11.23	Tolerances revised	KJ/EC/DD	
D	08.06.19	0.050 x 20° dimension added	KJ/DD	
E	11.07.26	Dimensions updated per Dwg Rev D	KJ	
F	14.01.21	Dwg Rev updated	KJ	✓

0.561



D3492-XXX PLUG PARTS LIST

QTY	PART NUMBER	DESCRIPTION							
X								D3492-041	PLUG ASSEMBLY
	X							D3492-043	PLUG ASSEMBLY
		X						D3492-045	PLUG ASSEMBLY
			X					D3492-047	PLUG ASSEMBLY
				X				D3492-049	PLUG ASSEMBLY
					X			D3492-051	PLUG ASSEMBLY
						X		D3492-053	PLUG ASSEMBLY
							X	D3492-055	PLUG ASSEMBLY
1								D3492-1	PLUG
1								D3492-3	PLUG
	1							D3492-5	PLUG
		1						D3492-7	PLUG
			1					D3492-9	PLUG
				1				D3492-11	PLUG
					1			D3492-13	PLUG
						1		D3492-15	PLUG
							1	NAS1611-005	O-RING
							1	NAS1611-007	O-RING
1								NAS1611-010	O-RING
					1			NAS1611-012	O-RING
						1		NAS1611-013	O-RING
							1	NAS1611-015	O-RING
							1	NAS1611-016	O-RING

NOTES:

1) O-RING: POSSIBLE SUPPLIER P/N: NAS1611-XXX OR PARKER 2-XXX

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 122712 MLJ

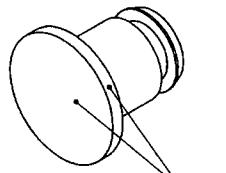
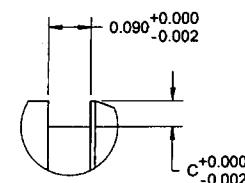
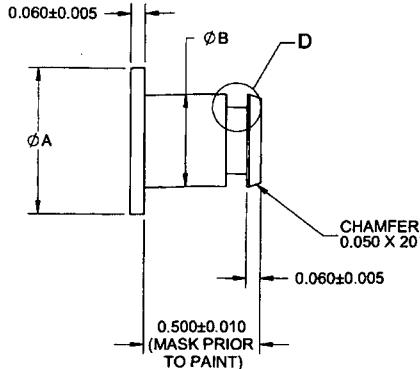
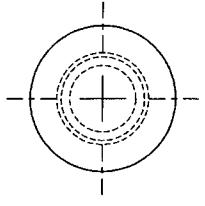
14-07-23

RELEASED
2013-11-13

E	ADD -055 PLUG ASSY & -15 PLUG	AP	13.08.08
D	INCORPORATED DEO D3492-C-1. SHT 2 DIM C FOR -1 WAS 0.059. (SEE CAR1-048)	AJS	11.05.24
C	ADD -049-051-053, CHANGE DRAWING FORMAT	PH	07.10.05
B	ADD -047, UPDATE DIM A FOR -045	PH	06.05.11
A	NEW ISSUE	PH	06.01.04
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE LTD	
DRAWN	AP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. E
MFG. APPR.	DA	D3492	SHEET 1 OF 2
APPROVED	DA	TITLE	SCALE
DE APPR.	DA	PLUG	NTS
DATE	13.08.08	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

D

POWDER COAT THESE
FACES ONLY PER NOTE 2**DETAIL D****D3492-XX PLUG**

C

D

C

C

B

B

D3492-XX PLUG MACHINING DETAILS

P/N	A	B	C	MATERIAL SPEC
D3492-1	0.625	0.394	0.050	M6061T6R0.625
D3492-3	0.750	0.582	0.045	M6061T6R0.750
D3492-5	0.375	0.188	0.045	M6061T6R0.375
D3492-7	0.500	0.270	0.045	M6061T6R0.500
D3492-9	0.938	0.750	0.045	M6061T6R1.000
D3492-11	0.850	0.664	0.045	M6061T6R0.875
D3492-13	0.750	0.510	0.045	M6061T6R0.750
D3492-15	0.850	0.640	0.050	M6061T6R0.875

E

NOTES:

- 1) MATERIAL: ALUMINUM 5052-H32 OR 6061-T6 OR 1100-0 PER QQ-A-225/7 (5052) OR QQ-A-225/8 (6061) OR QQ-A-200/8 (6061) OR QQ-A-225/1 (1100) (REF. DART MATERIAL SPEC M6061T6R0.000)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE GLOSS (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	AP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	A/S	DRAWING NO.	REV. E
MFG. APPR.	DS	D3492	SHEET 2 OF 2
APPROVED	MO	TITLE	SCALE
DE APPR.	MM	PLUG	4:1
DATE	13.08.08	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR DISCLOSED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

RELEASED
2013-11-13

A